

PTO/5B/08A (08-05)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

2

**Complete if Known**

|                        |                       |
|------------------------|-----------------------|
| Application Number     | 10/790,492            |
| Filing Date            | March 1, 2004         |
| First Named Inventor   | Lingyi A. Zhang       |
| Art Unit               | 2822                  |
| Examiner Name          |                       |
| Attorney Docket Number | MIQ 0082 N2/40509.282 |

| U. S. PATENT DOCUMENTS |          |   |                                |  |   |
|------------------------|----------|---|--------------------------------|--|---|
| Examiner Initials*     | Cite No. | Document Number<br>Number+Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                        |          | US-5,023,883-   | 06/11/1991                     | Yamada-  |   |
|                        |          | US-5,624,865-   | 04/28/1997                     | Schuegraf et al.-                                  |   |
|                        |          | US-5,965,260-   | 05/18/1999                     | Liu et al.-  |   |
|                        |          | US-6,060,297-   | 09/20/1999                     | Said-  |   |
|                        |          | US-6,042,652-   | 03/29/2000                     | Hyun et al.-                                       |   |
|                        |          | US-6,175,129-   | 04/16/2001                     | Liu et al.-  |   |
|                        |          | US-6,207,494-   | 03/27/2001                     | Grimm et al.-                                      |   |
|                        |          | US-2001/0024387 A1-   | 09/27/2001                     | Rasajmakers et al.-                                |   |
|                        |          | US-2002/0047451 A1-   | 04/25/2002                     | Kim et al.-  |   |
|                        |          | US-2002/0086486 A1-   | 06/06/2002                     | Lee et al.-  |   |
|                        |          | US-6,605,460 B2-  | 08/12/2003                     | Lee et al.-  |   |
|                        |          | US-6,605,549 B2-  | 08/12/2003                     | Lee et al.-  |   |
|                        |          | US-   |                                |  |   |
|                        |          | US-   |                                |  |   |
|                        |          | US-   |                                |  |   |
|                        |          | US-   |                                |  |   |
|                        |          | US-   |                                |  |   |
|                        |          | US-   |                                |  |   |
|                        |          | US-   |                                |  |   |

| FOREIGN PATENT DOCUMENTS |          |  |                                |  |   |
|--------------------------|----------|--|--------------------------------|--|---|
| Examiner Initials*       | Cite No. | Foreign Patent Document<br>Country Code <sup>3</sup> Number <sup>1</sup> Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear |
|                          |          | KR-2002002722-   | 06/30/2000                     | Yoo-   |   |
|                          |          | KR-2002050384-   | 12/21/2000                     | Cho-   |   |
|                          |          |  |                                |  |   |
|                          |          |  |                                |  |   |
|                          |          |  |                                |  |   |
|                          |          |  |                                |  |   |
|                          |          |  |                                |  |   |

|                    |              |                 |          |
|--------------------|--------------|-----------------|----------|
| Examiner Signature | J. M. Thomas | Date Considered | 01-03-06 |
|--------------------|--------------|-----------------|----------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kind Code of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.99. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. 6 SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Best Available Copy

PTO/GB/086 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|   |                        |                          |                 |
|---|------------------------|--------------------------|-----------------|
| Substitute for form 1449/PTO  |                        | <b>Complete if Known</b> |                 |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |                        | Application Number       | 10/790,492      |
|   |                        | Filing Date              | March 1, 2004   |
|   |                        | First Named Inventor     | Lingyi A. Zheng |
|   |                        | Art Unit                 | 2822            |
|   |                        | Examiner Name            | T. M. Thomas    |
| Sheet 2 of 2  | Attorney Docket Number | MIO 0082 N2/40509.292    |                 |

| NON PATENT LITERATURE DOCUMENTS |           |   |    |
|---------------------------------|-----------|---|----|
| Examiner Initials*              | Cite No.† | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.                                 | T² |
| JMJ                             |           | 0.13 um CMOS DEVICE CHARACTERISTICS, <a href="http://www.semiconductor.net/semiconductor/issues/issues/2000/200001/images/Six0001">http://www.semiconductor.net/semiconductor/issues/issues/2000/200001/images/Six0001</a> , July 31, 2001, p. 1  |    |
| JMJ                             |           | PETER SINGER, Atomic Layer Deposition Targets Thin Films, Semiconductor International-September 1999, Technology News, p. 1,2   |    |
| JMJ                             |           | PROFESSOR MARKKU LESKELA et al., Fabrication of Thin Films for Electronics by Atomic Layer Deposition and Electrodeposition, Communications URL: <a href="http://193.167.96.38/content/eng/cfm?fram=users/177/2048/cfm">http://193.167.96.38/content/eng/cfm?fram=users/177/2048/cfm</a> , p. 1 |    |
| JMJ                             |           | GENUS, What is ALD? p. 1  |    |
| JMJ                             |           | ALD Products, ALD Products GENUS, About Genus/Investor Relations/News/Careers/Support & Training/ALD Products/CVD Products/Markets/Site Index/Glossary/Home/Legal Notices/Copyright 2001 Genus Inc., p. 1   |    |
|                                 |           |   |    |
|                                 |           |   |    |
|                                 |           |   |    |
|                                 |           |   |    |
|                                 |           |   |    |
|                                 |           |   |    |
|                                 |           |   |    |

|                    |                     |                 |          |
|--------------------|---------------------|-----------------|----------|
| Examiner Signature | <i>J. M. Thomas</i> | Date Considered | 01-03-06 |
|--------------------|---------------------|-----------------|----------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

†Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

BEST AVAILABLE COPY